DOCUMENT RESUME

ED 441 762 SP 039 218

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TITLE	What Happens in the Practicum: The Contribution of School-Based Practitioners to Teacher Education.
PUB DATE	2000-04-00
NOTE	26p.; Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA, April 24-28, 2000).
PUB TYPE	Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Cooperating Teachers; Elementary Secondary Education; Faculty Development; Foreign Countries; Higher Education; Inservice Teacher Education; *Mentors; *Practicums; Preservice Teacher Education; Professional Training; Student Teachers
IDENTIFIERS	New Zealand

ABSTRACT

Student teachers spend a high proportion of their time in schools as part of their preservice training. Concern has been expressed about moves to increase this time, because it appears that much of what occurs in the schools more closely resembles a teacher training model than one of teacher education. This study sought to investigate whether school-based mentors who had been trained in principles of teacher education more closely resembled teacher educators in the activities undertaken and the interactions they had with their student teachers than did their untrained counterparts. Measures were developed to distinguish teacher education activities from those of teacher training. Three of the four mentors who participated in the study defined their roles in ways more consistent with teacher education than did their untrained counterparts and scored more highly on the measures developed for the study. Implications for teacher education are discussed. (Contains 19 references.) (Author/SM)

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ED 441 762

What Happens in the Practicum: The Contribution of School-Based Practitioners to Teacher Education

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Paper presented at the American Education Research Association Conference, New Orleans, April 2000.

Acknowledgements: The authors wish to acknowledge the mentors, associate teachers and student teachers in the schools who were involved. Without their generous donation of time and energy this research would not have been possible. The Ministry of Education's funding support was also appreciated.

SP039218

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ABSTRACT

Student teachers spend a high proportion of their time in schools as part of their pre-service training. Concern has been expressed about moves to increase this time because it appears that much of what occurs in the schools more closely resembles a "teacher training" model than one of "teacher education". This study sought to investigate whether school-based mentors who had been trained in principles of teacher education more closely resembled teacher educators in the activities undertaken and the interactions they had with their student teachers than did their untrained counterparts. Measures were developed to distinguish teacher education activities from those of teacher training. Three of the four mentors who participated in the study defined their roles in ways more consistent with teacher education than their untrained counterparts and scored more highly on the measures developed for the study. Implications for teacher education are discussed.

What Happens in the Practicum:
The Contribution of School-Based Practitioners to Teacher Education

Internationally, the nature of initial teacher training has changed radically in the last two decades as professional initiatives and government measures have both contributed to the restructuring of the relationship between training institutions and schools. University dominated teacher education has been criticised as being too theoretical for what is essentially a 'practical activity' (Husbands, Lunt, McKenzie & Powell, 1993; Lawlor, 1990; O'Hear, 1998). Not surprisingly, this criticism has been associated with demands for schools to be more directly involved. Believing that the partnership model potentially offered the best from both worlds, The University of Auckland developed its teacher education programme in partnership with a group of consortium schools. Student teachers in the graduate program currently spend nearly half of their training time in schools.

The increased involvement of schools in teacher education is not without its critics. For example, concern has been expressed in Britain by Fish (1995) that calls for school-centred schemes are based on concepts more closely reflecting "teacher training" than of "teacher education" and have their origins in industrial notions of quality control. Practice is the focus. Theory is not important. After examining what happened in schools in the United States, Feiman-Nemser, Parker & Zeichner (1994) questioned whether school-based practitioners could be considered to be teacher educators.

The essence of the debate centres on whether the experience offered by schools develops practitioners who focus on both their performance and the ideas behind their performance or just the performance itself (Feiman-Nemser et al. 1994). The concern of the university educators is that the emphasis they place on student teachers reflecting on their practice in ways that makes explicit the links between what they do and what research has demonstrated to be effective in teaching would not be emphasised by school-based practitioners (Zeichner, 1994; Tsangaridou & Siedentop,

1995; Wilkin, 1990; Tomlinson, 1995). This concern has led to labels of school-based teacher "training" and University-based teacher "education."

The University of Auckland attempted to overcome these potential problems by training the school-based practitioners as mentors in each school who undertook two graduate-level papers in teacher education. The first of these papers included presentation of various approaches to teacher education and the theory of effective teaching that underpinned the course (Berliner, 1987). Skills in giving feedback following classroom observations were also taught. The second paper focused on the mentor's own teaching practices. It was hoped that the combination of experienced practitioners, who also understood the concepts associated with teacher "education" and knew about the theories of teaching and learning taught as part of the course, would offer the student teachers a high quality experience in schools that would complement what was taught in the university. This research project sought to ascertain whether this hope had been realized through exploring the following questions: To what extent do the mentors' practice reflect that of a teacher educator or teacher trainer and how do their practices compare with their untrained counterparts?

The challenge for the researchers was to make the distinction between teacher education and teacher training in a way that it could be investigated. Two qualities stand out in the literature. These are the development of practitioners who can reflect on the effectiveness of their practice and those who can link their practice to accepted theory. The distinction between these aspects is somewhat artificial because reflection should be theory-based if it is to go beyond a self-sealing introspective process. We do not wish to imply that their separation for measurement purposes reflects a belief that each stands alone. We consider both to be essential.

Although much has been written on reflective practice as an essential quality underpinning the various tertiary programmes and on the importance of integrating theory into practice, little has been empirically investigated beyond qualitative descriptions of the absence of these qualities in schools (eg. Feiman-Nemser et al. 1994). The lack of measures in the literature made the task very difficult.

Van Manen (1977) proposed three levels of reflection. A lower, technical level focusing on the means to reach a given goal. A middle practical level including the analysis of meanings, assumptions and perceptions underlying practical actions. A higher third level incorporating critical questions related to moral, ethical and political aspects of teaching and schooling. Tsangaridou and Siedentop (1995) challenge the hierarchy of "levels" and caution that researchers have created a romantic, cognitive and sometimes highly politicised view of reflection that can label teachers as unreflective if and when they do not conform to these views. They suggest that teacher's thinking and reflection should be framed in terms of actual problems they experience in the classroom and that they see as significant.

In this study, we adopted criteria based on this latter model of reflection. The extent to which a conversation between a mentor and student teacher conformed to a teacher education or teacher training model was judged according to whether or not it elicited the student teacher's personal theories about their practice, probed and examined those theories and used them to form the basis for modifications to future practice.

The second quality that is purported to distinguish teacher training from teacher education is the extent to which student teachers are assisted to make links between their practice and the theories that could be used to inform that practice (Wilkin, 1990). Gore and Zeichner (1995) emphasise that effective theory-practice links should include those theories embedded in teacher's own practices. A potential problem with defining theory-practice links solely in terms of the teacher's personal theories is that this may neglect current research and become a training in "what works for them" rather than any linking with theories of teaching effectiveness (Wilkin, 1990; Moran & Dallat, 1995). For this reason, we assessed the extent to which theory-practice links were made by the teacher educators on the basis of the extent to which the mentors justified their comments to the student teacher with reference to some theoretical concept and the degree of formality with which this was done.

Method

The research team comprised one university researcher and four school-based mentors, three of whom were full-time teachers. This composition helped to gain access to school-based teacher educator theories and their related practice. The credibility of the mentors in the schools is reflected in an almost complete data set. All who were asked to participate did so with only one person not completing the data collection tasks.

Four state elementary schools from the University of Auckland Schools' Consortium participated. To be considered for selection, the mentor at the school had to have undertaken training in 1998, the second year of the programme. From this pool of 10 schools, four were selected to represent a range of socio-economic communities (one high, two medium and one low) and geograhically spread throughout the city.

Participants

In the University of Auckland consortium model, mentors oversee the education of student teachers assigned to the school. In addition to the mentor, each school selects associate teachers to host, work alongside and supervise student teachers in their classrooms. These associate teachers are not specifically trained beyond receiving written information on the course. In each school one mentor, two associate teachers and their student teachers participated in the research. The inclusion of the associate teachers provided an untrained group whose practice could be contrasted with that of the mentors.

Data Collection

The research was conducted during the second school placement of a one year graduate course. The student teachers had spent seven weeks in other schools prior to this time and nine weeks on the course itself.

In order to obtain information about mentors' and associate teachers' beliefs about their role, they were asked at an initial interview to describe their roles and to rate the importance of different aspects of their own and the others' role on a 1-5 scale (see

Appendix One). They were also asked what they understood the concepts of reflective practice and theory-practice links to mean. Student teachers completed the same rating scale for mentor and associate roles.

The extent to which these role descriptions matched their practice was ascertained through audio-tape recordings of feedback sessions between mentors/associates and student teachers during a six-day period. These audio-taped conversations were compared to a set of criteria to assess the extent to which they were likely to promote reflective practice and theory-practice linking. The transcripts were rated independently by two of the researchers, with any disagreements moderated by the whole research team. Appendix Two has examples of both reflective practice and theory-practice linking that were taken from the transcripts and used for moderation purposes.

The following criteria were used to rate the transcripts on the extent to which they promoted reflective practice. A transcript received a level one rating if one of two options were evident. In the first option, the mentor or associate teacher asked questions that elicited the student teachers' personal theories about the topic under discussion but these theories were not developed in a two-way discussion about the issue. In the second option, the student teachers expressed their personal theory about the topic under discussion and the mentor/associate acknowledged or restated this but did not engage the student teacher further.

In a level two conversation, the mentor or associate teacher both elicited student teachers' personal theories about the topic under discussion and engaged these theories in terms of their implications for practice. No future action for improvement was discussed. In a level three conversation these personal theories formed a rationale for future practice. A level four transcript required more than one instance of a level-three example in the same conversation.

Theory-practice linking was considered to occur when the mentor or associate teacher justified their comments (advice, compliments, critique) with reference to some theoretical concept. In a level one conversation, this justification focused on the student teacher's practice but was not related to student learning outcomes. The theory

may have been the mentors' or associate teachers' own personal theory. A level two conversation required the participants to look beyond issues of immediate performance and relate the justification to some theory of child learning including theories of teaching effectiveness, theories of learning, and/or subject pedagogy. In a level three conversation, the justification was couched in terms of formal theory, such as formal terminology/language, theorists and/or concepts. We considered more formal justification was desirable if the mentor was to facilitate the links between formal theories taught at the university and the student teachers' actual practice. To reach level four, the conversation required more than one instance of the level three example in the same transcript.

Within two weeks of gathering the tape-recorded data, follow-up interviews were conducted with all participants, including the student teachers. In order to deepen our understanding of the participants' definition of reflective practice and theory-practice links, they were also asked to identify examples of these activities in transcripts of their audio-tapes. The written case studies were later returned to the participants to check for accuracy of the researchers' interpretations.

Teacher Education or Teacher Training

The findings from the four case studies are divided into three sections; the ways in which mentors and associate teachers defined their roles, the extent to which they promoted reflection on practice and finally, the development of theory-practice links.

Role Definitions

During the initial interview, all participants were asked to rate the importance of various aspects of the mentors' and associate teachers' roles (Table 1). Mentors defined their roles in ways that were consistent with that of a teacher educator with a focus on an the reasons underlying practice. The associate teachers' definitions, on the other hand, more closely approximated that of a teacher trainer with practical issues dominating the role.

There was agreement among all respondents that promoting reflection on practice was high on the list of roles for mentors. As one described it, *"They [the student teachers]*

have such a short time to develop their own style and their own skills. They've got to be thinking straight away, why am I doing this?" Making theory-practice links was not rated as highly by mentors in their own role as some other aspects, such as providing pastoral care and support. Theory-practice linking, however, was seen to be much more important than practical aspects of the school placement, such as practical guidance for teaching and organizing teaching experiences.

Table 1.

Average Ratings[1] Given by Mentors, Associate Teachers, and Student Teachers for the Importance of Different Aspects of Mentors' and Associate Teachers' Role.

	Mentor role			Associate Teacher role		
Aspects of the Role[2]	Mentors	Associate Teachers	Student Teachers	Mentors	Associate Teachers	Student Teachers
Reflection on practice	1.0	1.5	1.5	1.75	1.25	1.75
Pastoral care / support	1.0	1.63	2.0	1.5	2.0	2.25
ST assessment	1.25	1.63	2.75	1.63	1.75	1.63
Giving feedback	1.25	2.25	1.25	1.75	1.0	1.75
Liaison person	1.25	2.25	1.75	2.25	2.75	3.5
Theory-practice links	1.5	2.5	1.5	1.63	2.25	2.75
University assignments	2	2.38	3.25	2.5	2.5	3.0
Practical guidance	2.25	1.75	1.75	1.63	1.0	1.25
Organizing teaching exp.	2.5	1.88	2.0	1.5	1.0	1.5
Friendship	3.5	2.88	2.75	3.0	2.75	2.25

[1] A scale of 1 - 5 was used with 1 representing "very important", 3 representing "moderately important" and 5 representing "not important".
[2] Full descriptors for aspects of the role are in Appendix 1.

Associate teachers, on the other hand, gave greater emphasis to practical roles, such as giving practical guidance for teaching, organizing teaching experiences and giving feedback. As one described, *"A lot of the students, they know what they want to teach*

but don't actually quite know how to get there or what to do with it. They say 'I'm going to teach this,' and you say 'How?' and that's where they tend to fall down." Several others mentioned the importance of being a good role model. Promoting reflective practice was seen to be less important than these other roles, but was still important. The associate teachers gave a relatively low priority to the job of making theory-practice links. The differences between the mentors and associate teachers were even more evident when we looked at what each group actually meant by concepts such as promoting reflection on practice.

Promoting Reflection on Practice

There are obvious limitations to judging how a role might be enacted in any individual's single transcript because circumstances often determine the nature of the conversation. As a check on this limitation, we determined the extent to which mentors' and associate teachers' definitions of promoting reflection were consistent with their practice. Despite the time separation between providing the definition in the first interview and taping the conversation approximately two weeks later, there was a high level of consistency between the two.

What was less indicative of practice was the importance the participants ascribed to promoting reflection on practice. The apparent similarities in ratings of importance between the mentors and associate teachers, for example, disguised differences in how each group defined it. The mentors' definitions and their practice were largely consistent with the criteria used by the researchers for evaluating the transcripts, while many associate teachers' definitions were not. These differences are reflected in the ratings given to the transcripts by the researchers shown in Table 2. Three of the four mentors showed evidence of repeatedly probing the student teachers' reasons for practicing in the way they did and following up this probe by exploring the implications of their theories for current and future practice. Conversely, only one of the seven associate teachers showed this same pattern. The mentor at this school had trained the associate teacher because she believed that all those involved with the student teachers should be teacher educators.

Table 2

Transcript Ratings for Promoting Student Teacher Reflection for Each Mentor and Associate Teacher.

	Mentor	Associate One	Associate Two
School			
South	4	4	1
North	4	2	1
Central	4	2	1
West	1	1	No transcript

The mentor who had trained the associate teacher was at South School. She described promoting reflection on teaching in the following way:

> *Really thinking about what they [the student teachers] have done, then linking it back to theory that they've learnt and seeing how it fits and helping them to think about their own theories of doing things and then thinking about making positive change and setting goals.*

Her definition was consistent with her practice. One example related to teaching concepts of time. Her references to student engagement, monitoring and mastering concepts were based on Berliner's (1987) theory of effective teaching that provided the underpinning theory of teaching effectiveness for the teacher education course.

Mentor: *Okay, in what ways did you consider that you promoted engagement in the learning in this lesson? Think of your [university] assignment and what you were asked to cover in that - can you now relate it to what you actually did and how you promoted engagement?*

ST: *Well I tried to watch all the children, all the time. I gave them examples of times to make and I checked each person to check that they were understanding what I was talking about because I've found quiet children sometimes don't understand but I haven't realized it. A couple of children who got a time wrong, I went over that again, like with the half pasts, there were three or four children that didn't get the concept of the little hand. And I tried to reinforce that by providing another opportunity to understand it. But then they were getting off task so I bought in a game*

which I felt would get them all back in. That last game, when I felt Louis was drifting off, I felt right, we'll play that game that we played yesterday because I knew that they all enjoyed it yesterday so I brought them back that way.

After inquiring further about balancing monitoring the children's understanding of the concepts taught while still keeping them engaged, the mentor asked how the student teacher might do this next time.

ST: *Yesterday I sat Joshua beside me on my right, so I was always looking at him and what he was doing because he was the one that stood out yesterday as perhaps not quite being up with the others. And just basically looking at everything they were doing. Always checking their times. Yes.*

M: *Can you think of any other activities you could include say in a series of lessons, and any future lessons, that you could really pinpoint individuals so that you could be really sure before you move onto say the next stage of your planning, to move onto say quarter hour?*

Apart from the one associate teacher at South School whose practice was rated highly by the researchers, all other associate teachers defined promoting reflection on practice in much more practical terms. There was considerable variation in their definitions, with an extreme example being *"to go away and do your own self-reflection on a lesson"*.

A more typical response from another associate teacher comprised,

Asking what she [the student teacher] thinks went well and what didn't go well and then talking about what she would do differently and then me providing some feedback as well of how I view the situation.

Her taped feedback showed a high level of consistency with this definition and was rated as Level One by the researchers.

AT: *What do you think went well in your writing lesson?*

ST: *I think the only think that went well is arranging alphabetical order and that's about it. I think it went horribly.*

AT: *Why do you think it went horribly?*

ST: I don't know it's just not what I had in mind.

After establishing that the student teacher's planning had not matched the reality of the situation, the associate teacher went on to explain:

> *And that's the sort of thing with teaching. I suppose you have to expect always the unexpected and you need to have in your head the strategies of what you're going to do.*

This conversation differed markedly from those of most of the mentors because neither the student teacher's personal theory nor any other theory underpinning her practice was explored. The advice, therefore, was in the form of practical tips. Expectations of this type of conversation were evident in the way student teacher herself defined reflection. *"Thinking about what you could have done that would have made it [the lesson] better".*

The differences in the mentors' and associate teachers' definitions of promoting reflection and how these definitions exhibited themselves in practice illustrate the difference between a teacher education and teacher training model. Mentors used probe questions to help the student teachers to clarify their thinking, how it related to theory and used this reflection as the basis on which they could then plan future practice. Associate teachers' conversations remained very much based on the lesson taught. Conversations were prescriptive, polite, neutral, and focused on the technical aspects of teaching (Sykes, 1986; Van Manen, 1977).

Making Theory-Practice Links

Neither mentors nor associate teachers placed as much importance on creating theory-practice links as they did on promoting reflection on practice. The mentors, however, believed it to be more important in both their own and the associate teachers' role (ratings of 1.5 and 1.63 respectively) than did the associate teachers in either role (ratings of 2.5 and 2.25 respectively. It could be argued that expecting school-based practitioners to assist student teachers to make theory-practice links is unreasonable because their concern should be with allowing student teachers opportunities to practice rather than theorizing about this practice. This argument is based on the premises of a teacher training model, and our concern with this stance is that it creates a demarcation between what is taught at the university and what practice is about.

Making the appropriate links then becomes the responsibility of the student teacher who may not have the conceptual tools to do so.

The greater ambivalence about this aspect of the role was reflected in the limited success of the participants in doing so and is evident in Table 3. As with promoting reflection, the high rating for the associate teacher South School can be attributed to the training she received from her mentor. Both demonstrated practice more consistent with the researchers' definition than did other mentors or associate teachers.

Table 2.

Transcript Ratings for Promoting ~~Student Teacher Reflection~~ Theory-Practice Links for Each Mentor and Associate Teacher.

School	Mentor	Associate One	Associate Two
South	4	4	1
North	2	2	1
Central	2	2	2
West	1	1	No transcript

The mentor at South School explained that she tried to link practice back to theory whenever she had a conversation with a student teacher. She defined linking theory and practice as:

> *To me it means they're learning about linking theory to the classroom and about the theory of engaging children in learning activities. But I think it's actually realising when they're doing it because it can be a lot of words but actually to discuss this and to link it up at the time... Promoting that linking, helping them to see – to identify those things."*

Indeed her conversation did show these qualities. It was rated at level four by the researchers as it clearly linked theory to practice on the criteria defined by the researchers. For example, she said to the student teacher who was teaching the concept of the hour:

I don't know if you've covered it yet at university but the point that children have to re-visit a concept four times over two days before you can really expect them to have mastered it. That's an interesting point to keep in mind that in terms of engagement you're allowing some maintenance each day so that knowledge of the hour is not lost.

One of the associate teachers from South School demonstrated similar qualities in her transcript. Both she and her mentor attempted to create an environment where education rather than training was their focus. Both student teachers reported that they very aware of how the university material related to the classroom. Moreover, they also believed that they were gaining advanced skills in analysing their practice and working towards agreed goals. In the audio-taped conversations, they demonstrated that they were able to make explicit their underlying assumptions, explore these and plan necessary changes. The university staff reported that the student teacher placed with this associate teacher had initially been a very weak student, but had made significant changes to her practice over the placement and was moving towards becoming an effective classroom teacher.

Two of the other three mentors did take their student teachers beyond a focus on immediate issues of practical performance, by relating their justification for practice to theories of child learning. Their transcripts were given a lower rating of two, however, because they failed to relate this justification to formal theory.

The mentor at North School was more typical of this approach. She believed that she was better at giving practical advice than making theory-practice links which she found difficult. She defined theory-practice links as taking out parts of the readings from the mentoring course and other reading pertinent to teaching, and linking and putting those into practice. This definition was not very evident in her audio-tape of the feedback conversation. She did link an evaluation of the student teacher's practice to her theory of learning, but did not relate it to any course readings. For example, she said to the student teacher:

That's what they say about children's learning, isn't it? That we can be busily teaching them but if we haven't actually found out what their prior knowledge is, they might not be understanding.

Her transcript also included a 25-minute seminar on guided silent reading. No reference was made to any formal theory of reading during this time.

One of the associate teachers at this school believed that making theory-practice links was primarily the mentor's role. She thought that the mentor *"would have more time to do them justice"*, and was not sure what it entailed so she had not *"done a lot... so if it's important, [the mentor's] got to do it."* As a result, theory-practice linking was a 'hit and miss affair' (Wilkin, 1990) in three of the four schools.

This inconsistency in approach was also reflected in the student teachers' responses. At South School where the student teachers had been exposed to a mentor who made explicit theory-practice links, they expected the mentor to assist them. Others believed that it was their own responsibility to make the links and were able to cite examples of a theory they had seen applied in the classroom. They had more difficulty connecting their associate teachers' explanations about practice to theory. For example, one student teacher described difficulties in seeing the logic behind what her associate teacher had said in the audio-taped conversation and did not know if it related to any formal theory. This lack of a shared language to explore different aspects of a concept can lead to problems of student teacher "disconnectedness" which can result in student teachers having difficulty accessing the craft knowledge of teachers (McIntyre, 1997; Griffiths & Tann, 1992). Perhaps the response of most concern was that of a student teacher who did not think that theory (from a book) was necessarily related to what was happening in the classroom. She was not looking to make theory-practice links.

Some of the participating mentors and associate teachers argued that there was little time to promote reflection on practice and to create theory-practice links in their conversations with their student teachers. An interesting finding from the analysis of the transcripts was that the length of the transcript was unrelated to the ratings received. Highest ratings were given to transcripts of between 4 and 9 pages (representing approximately 8 to 18 minutes of conversation), while lowest ratings included transcripts of 18 pages (representing approximately 57 minutes of conversation). It appears that some mentors and associate teachers were able to probe the student teachers' thinking in relatively brief conversations with their student

teachers, whereas others spoke for a considerable length of time in purely descriptive and practical ways.

CONCLUSIONS

Teacher education rather than teacher training is the aim of most pre-service programs. Much of the literature on this topic indicates that achieving a teacher education program in a school-based context is difficult, if not impossible, and provides the argument for keeping teacher education firmly placed within higher education institutions (Fish, 1995; Feiman-Nemser et al, 1993). On the other hand, university dominated teacher education programs have been criticised as being too theoretical for what is essentially a "practical activity" (Husbands et al., 1993; Lawlor, 1990; O'Hear, 1998). We sought through this research to identify if training mentors in teacher education principles, providing a common theory base of teaching effectiveness for both groups, and assisting with feedback skills would help to establish a teacher education model in the school component of the program.

Testing the extent to which the mentoring represented a teacher training model so early in the student teacher's training was particularly challenging. The program was in its eighth to ninth week. The student teachers had been in the school for only two to three weeks. Mentors would typically have observed one or two lessons before they had the conversations with their student teachers that were used in the research. The sequential nature of student teacher development has led many to suggest that the training offered should reflect this sequence, and travel through a developmental evolution (Moran & Dallat, 1995). Daloz (1986), for example, believes that the skill of the mentor is in recognising that the mentor-student relationship has sufficient trust to enable the mentor to determine whether support or challenge is required. While the interactions between the mentors and student teachers must change as the needs of the student teachers change, the assumptions of the program at the University of Auckland are that student teachers should be challenged to reflect on practice in theoretically defensible ways from the beginning. Trust is developed through support and challenge from the beginning and every conversation with the student teachers demands an informed reflection on practice because this is more likely to promote their learning.

In three of the four schools the interactions between the student teachers and their mentors, could be described as fitting most closely with a teacher education model. They went beyond polite, superficial and teacher dominated conversations (McAlpine, Brown, McIntyre & Hagger, 1998; Elliot & Calderhead, 1994). They defined their role in teacher education terms, and asked questions that prompted the student teachers to reflect on their practice in ways that engaged their personal theories and the implications of these for future practice. Follow-up interviews with the student teachers indicated that these conversations were typical.

Overall, the mentors were better at eliciting the student teacher's theories than they were at articulating their own which tended to remain at an implicit level. There are obvious implications for the university training, but more important are the implications for teacher education. Listening to and writing about how theories of teaching effectiveness and student learning relate to practice was insufficient to get most of these mentors to make the theories explicit to their student teachers. They also needed to be shown how to do it.

The congruence between the participants' description of the concepts of promoting reflection on practice and theory - practice links, however, indicates that what is talked about is also powerful. The way in which the participants defined their roles and the key elements within it proved to be a powerful predictor of what they did. This applied to both those whose practice most closely resembled a teacher education role, and those whose practice resembled that of a teacher trainer. Most of the associate teachers described their role in practical terms and practised accordingly. Even those aspects of the role that lent themselves to more theoretical definitions, such as promoting reflection on practice, were still conceived in very practical terms.

The different roles adopted by the mentors and associate teachers could be justified as being satisfactory because they are complementary. If the aspiration is to establish a teacher education rather than teacher training program, however, this justification is insufficient because it is the associate teacher classrooms that the student teachers spend most of their time. The role modeling perceived to be so important by the associate teachers not only relates to how to teach, but also how to inquire into and

critique the quality of that teaching. Teacher education programs require more than practical guidance for teaching.

This research, however, has shown that promoting a teacher education model in the school-based component of the course is attainable under particular conditions. These conditions include the opportunity to acquire both the understandings of the essence of a teacher education model and the skills to enact it. For this to happen, however, schools and universities must join forces to work out how to achieve it and each to be prepared to have their practice scrutinized.

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APPENDIX I

MENTOR / ASSOCIATE ROLE ANALYSIS

We, the Research Team, have come up with some possible aspects of your role. Would you please rate how important you think they are.

We are not trying to suggest mentors/ associates should be doing all these things.

We want to know what you think. Please use the whole scale of 1-5 when ranking the following.

In mentoring / associate practice, how important are these things?

	Very Important		Moderately Important		Not Important
	1	2	3	4	5
* Practical guidance for teaching	1	2	3	4	5
* Pastoral care/support	1	2	3	4	5
* Assessment of ST	1	2	3	4	5
* Organising Teaching Experiences	1	2	3	4	5
* Liaising person within school	1	2	3	4	5
* Assisting with University Assignments	1	2	3	4	5
* Friendship	1	2	3	4	5
* Developing Reflection on Practice	1	2	3	4	5
* Providing Feedback	1	2	3	4	5
* Making links between principles/theories of teaching and practice	1	2	3	4	5
* Other _____	1	2	3	4	5

APPENDIX II

Rating Criteria for Promoting Reflective Practice

Level One. At level one, the mentor or associate teacher asked questions that elicited student teachers' personal theories about the topic under discussion but these were not developed in a two-way discussion about the issue. For example,

M: What did you find out from the pre-test?

ST: Well, originally I started... (sets out what he/she did)

M: And how did that prior knowledge influence the way you promoted their engagement?

(After ST's response, subject is then dropped)

or

The student teacher expressed their personal theory about the topic under discussion and the mentor/associate acknowledged or restated this but did not engage the student teacher in further discussion about the issue. For example:

ST: I was very pleased with one or two children - they make mistakes but then again, they're in this routine where... but they just carried on. I was very pleased.

M: So they worked wonderfully and the early finishers went and read a book. They didn't disturb you or the rest of the class.

(Subject was then dropped)

Level Two. In a level two transcript, the student teachers expressed their personal theories about the topic under discussion and the mentor/associate teacher engaged with this but no future action for improvement was discussed.

ST: I don't know, it's just not what I have in mind.

AT: So what did you have in mind? What did you expect to happen?

ST: When I came over to work on the white board, I didn't expect trouble with that. I didn't expect that to happen. When that happened it got me into a panic mode

AT: Do you see it as a learning opportunity?

ST: Yeah, it was. I mean like at least it gave me the opportunity to find out that they didn't know it

Level Three. In level three, the student teachers expressed their personal theories, and the mentor/associate teacher engaged with this. The discussion formed a rationale for future practice. For example,

M: Do you think it worked well today?

ST: Yeah. I asked them what was halfway between 10 and 20 and they all said 15. But when it came to giving their change it was difficult. And the monitoring. Not just checking part of the group. Making sure the whole group is on task and on track with what they're supposed to be doing and understanding what they're supposed to be doing.

M: And what would you do with those early finishers, the ones who are really on to it and finished quickly while you've got the rest of the group still finding.

ST: I think my problem really was that I wanted them all to be finished at the same time so we could go to the answers altogether and I didn't want them to be doing something different while the others were still finishing but that doesn't matter. I did have some exercises ready which carried on to make up their own questions and I didn't need to worry about - I just should have sent them straight on to that and then stopped them altogether.

M: Great. So from what you've said to me, what goals would you like to set for yourself next time?

ST: Being direct with my directions. Monitoring that the whole group is on task and making sure they're all involved.

Level four. At level four, more than one instance of a level three example occurred in the same conversation.

Rating Criteria for Promoting Theory-Practice Links. Theory-practice Links were defined as occurring when the mentor/ associate teacher justified their comments (advice, compliments, critique) with reference to some theoretical concept. The comment could justify student teacher practice in terms of *"I liked what you did because..." but the 'because' must not just be 'because it works'.* Rather it should relate to one of three concepts: theories of teaching effectiveness, theories of learning, subject pedagogy.

Level One. To score at level one, this justification focused on the student teacher's practice but did not relate this practice to student learning outcomes. The theory may be the mentors' / associates' own personal theory. For example,

M: I liked the way you gave positive feedback to the children and you encouraged them because they are more likely to be easier to manage.

Level Two. A level two conversation related the justification to some theory of child learning including theories of teaching effectiveness, theories of learning, and/or subject pedagogy.

Example One:

ST: You lose their engagement a bit because they've already done it and it's not that interesting or ...

M: It depends which sort of children, I mean some children would switch off if they think 'I know this already'. Other children would like their support. But generally the idea of pre-testing is that you want to establish exactly where the children are at so that you are focusing that teaching so it's not too hard and it's not too easy, so it's stimulating for them and they are focused.

Level Three. In a level three example, the conversation couched the justification in terms of formal theory, such as formal terminology/language, theorists and/or concepts.

Level Four. A level four conversation required more than one instance of the three-point example in the same transcript. For example, the following questions related to Berliner's (1987) theory of effective teaching were asked in the same transcript:

M: First of all in what way did you structure the lesson around the objectives set?

In what ways did you consider that you promoted engagement in the learning in this lesson?

Think of your assignment and what you were asked to cover - can you now link it to what you actually did and in what way did you promote engagement?

How did you monitor the understanding of the children throughout your lesson?